

**What Is Claimed Is:**

1. A tool stocking and sorting system, comprising:  
first tool storage storing a first tool currently in use;  
second tool storage storing a second tool not currently in

5 use;

third tool storage serving as an outlet for a third tool  
not in use; and

a host system adapted to re-locate the first, second, and  
third tools among the first, second, and third  
10 storage as a function of demand data pertaining to  
a product corresponding to the respective tool.

2. The system of claim 1, wherein the tool is a reticle.

3. The system of claim 1, wherein the demand data is order  
or order prediction data.

15 4. The system of claim 1, wherein the host system  
calculates a first idle time, and resets the first idle time when  
demand data of the product corresponding to the first tool is  
received.

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5. The system of claim 4, wherein the host system determines a first time limit, and issues a first transfer command to move the first tool from first tool storage to second tool storage when the first idle time exceeds the first time  
5 limit.

6. The system of claim 1, wherein the host system issues a first return command to move the second tool from second tool storage to first tool storage when demand data of the product corresponding to the second tool is received.

10 7. The system of claim 1, wherein the host system determines a second time limit, calculates a second idle time, and issues a second transfer command to move the second tool from second tool storage to third tool storage when the second idle time exceeds the second time limit.

15 8. The system of claim 1, wherein the host system issues a second return command to move the third tool from third tool storage to first tool storage when demand data of the product corresponding to the third tool is received.

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9. A tool stocking and sorting method, comprising:  
providing first, second and third tool storage storing  
first, second, and third tools respectively; and  
relocating the first, second, and third tools among the  
5 first, second, and third tool storage as a function  
of demand data pertaining to a product corresponding  
to the respective tool.

10. The method of claim 9, wherein the tool is a reticle.

11. The method of claim 9, wherein the demand data is order  
10 or order prediction data.

12. The method of claim 9, further comprising:  
determining a first time limit;  
calculating a first idle time of the first tool, and  
resetting the first idle time when demand data of the  
15 product corresponding to the first tool is received;  
issuing a first transfer command to move the first tool from  
first tool storage to second tool storage when the  
first idle time exceeds the first time limit.

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13. The method of claim 9, further comprising:

determining a second time limit;

calculating a second idle time, and resetting the second

idle time when demand data of the product

5 corresponding to the second tool is received; and

issuing a second transfer command to move the second tool

from second tool storage to third tool storage when

the second idle time exceeds the second time limit.

14. The method of claim 13, further comprising issuing a

10 first return command to return the second tool from second tool

storage to first tool storage when demand data of the product

corresponding to the second tool is received.

15. The method of claim 9, further comprising issuing a

second return command to return the third tool from third tool

15 storage to first tool storage when demand data of the product

corresponding to the third tool is received.

16. A computer readable storage medium for storing a

computer program providing a tool management method controlling

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storing and sorting of tools in a manufacturing system, the method comprising:

receiving first and second time limits;

calculating a first idle time and resetting the first idle

5           time when demand data of a product corresponding to a first tool is received;

issuing a first transfer command to move the first tool from

first tool storage to second tool storage when the

first idle time exceeds the first time limit;

10          calculating a second idle time and resetting the second

idle time when demand data of the product

corresponding to a second tool is received; and

issuing a second transfer command to move the second tool

from second tool storage to third tool storage when

15          the second idle time exceeds the second time limit.

17. The storage medium of claim 16, wherein the method further comprises issuing a first return command to return the second tool from second tool storage to first tool storage when

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demand data of the product corresponding to the second tool is received.

18. The storage medium of claim 16, wherein the method further comprises issuing a second return command to return the  
5 third tool from third tool storage to second tool storage when demand data of the product corresponding to the third tool is received.

19. The storage medium of claim 16, wherein the tool is a reticle.

10 20. The storage medium of claim 16, wherein the demand data is order or order prediction data.